

# EXHIBIT A

1 Deposition of Iain M. Cockburn, Ph.D.  
2 Friday, February 10, 2012  
3 Oracle America, Inc. v. Google Inc.  
4 Offices of Analysis Group  
5 in Boston, MA  
6

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1 and for these patents as applied to one claim versus  
2 another claim?

3 And thirdly, I don't believe Dr. Reinhold  
4 was able to conduct the work that he did at the  
5 level of considering the contribution of individual  
6 claims to the portfolio. Neither Dr. Reinhold nor  
7 I, nor in my opinion persons engaged in a  
8 hypothetical negotiation about this specific  
9 portfolio of patents would have been thinking about  
10 this portfolio as an aggregation of claims; they  
11 would have been thinking about it as an aggregation  
12 of patents.

13 Q. Is there anything in your report that  
14 attempts to break out the value of the unasserted  
15 claims of the patents in suit versus the asserted  
16 claims?

17 A. I don't draw that distinction in this  
18 apportionment analysis, no.

19 Q. Let's move on to paragraph 405 on page  
20 152. I would like to talk a little bit about the  
21 studies that you used as your reference for the  
22 distribution of the value of the patents within the  
23 portfolio.

24 MR. NORTON: I don't want to get in your

1 points us to.

2           The stylized fact, if you like, if you  
3 poked an economist who's worked on these problems  
4 and asked them, you know, what share of the value of  
5 a portfolio of patents would the top 1 percent  
6 likely account for? I think they would likely say  
7 "Well, probably 50 to 75 percent," based upon some  
8 synthetic appreciation of all the results in the  
9 literature.

10       Q.    The three studies you relied on and that  
11 are discussed in Exhibit 34 and Exhibit 35, there's  
12 the PatVal study, the Harhoff study and the Barney  
13 study?

14       A.    Yes.

15       Q.    Taking them one at a time, with respect to  
16 the PatVal study, do you know how that study  
17 selected the population of portfolios that it used  
18 as its dataset?

19       A.    Well, it didn't use a population of  
20 portfolios; they looked at a population, a sample of  
21 patents. The sample of patents was -- I mean, these  
22 results come from a broader research project, which  
23 was to survey European inventors about a variety of  
24 things. One of the items of interest that the

1 people who conducted this study asked was for these  
2 inventors to provide some information about the  
3 value of one of their patents.

4 So the selection of that portfolio I think  
5 roughly could be understood as a random sample of  
6 inventors on patents from a particular application  
7 cohort.

8 Q. The PatVal survey, was the dataset  
9 exclusively European patents?

10 A. Yes.

11 Q. No U.S. patents?

12 A. No U.S. patents.

13 Q. And it was a sampling of patents from a  
14 variety of inventors throughout Europe. Correct?

15 A. Yes.

16 Q. It wasn't looking specifically at  
17 portfolios, it was constructing a portfolio by  
18 aggregating patents taken from various inventors?

19 MR. NORTON: Objection to form.

20 A. Well, as I said, it wasn't a study about  
21 portfolios; it was a study about patents. They  
22 looked at a sample of patents.

23 Q. And they concluded that within that sample  
24 of patents, the distribution was significantly

1 skewed in terms of the value with a small number of  
2 the patents in that sample containing a large  
3 percentage of the value?

4 A. Yes.

5 Q. What sorts of technology areas were  
6 covered by the patents in the PatVal study?

7 A. Most.

8 Q. There wasn't any particular focus?

9 A. There was no particular focus, as I  
10 recall. I mean, it was a broad-based study based on  
11 a random sample of inventors.

12 Q. Okay, let's -- Well, strike that. Staying  
13 with the PatVal study for a minute, how did that  
14 study go about estimating the value of the patents  
15 within the sample?

16 A. They asked the inventors to the extent  
17 that they had knowledge about the value of their  
18 patent to report on this survey instrument their  
19 assessment of its value.

20 Q. Was that all done through self-reporting  
21 by the inventors?

22 A. Yes, self-reporting.

23 Q. Was there any sort of auditing mechanism  
24 that the study authors used to make sure that they

1 were getting good information from the inventors?

2 A. I'd have to check back, look at the paper.

3 I know from conversations with Dr. Gambardella, who  
4 was one of the lead authors on this study, that they  
5 had done some general and quite careful pretesting  
6 and validation of the whole survey questionnaire.

7 I'd need to go back and look at the study report  
8 more carefully to be able to answer that  
9 definitively yes or no.

10 Q. In terms of asking the inventors about the  
11 value of the patents, did the study for instance ask  
12 them whether they licensed the patent for a sum of  
13 money? How were the inventors asked to actually  
14 calculate a value?

15 MR. NORTON: Objection to form.

16 A. Well, the inventors weren't asked  
17 necessarily to calculate a value. They were asked  
18 to report what they knew about the value of these  
19 patents. So it could be that the patent had been  
20 sold or reassigned outright, or it could be that  
21 they were aware of licensing royalties, or it could  
22 be that they used some other kind of data to....  
23 I mean, they were assigning the value of a patent to  
24 a specific number or a specific range of numbers.

1       Q.    The inventors, was there any sort of  
2 consistent valuation methodology that the inventors  
3 used? For instance, did they all refer to revenue  
4 that had been generated by the patents through some  
5 products or was there some other way that value was  
6 reported?

7       A.    I'd need to go back and look at the  
8 footnotes to the paper. I would characterize it  
9 generally as self-reporting by inventors of their  
10 knowledge or assessment of the value of these  
11 patents.

12           MR. PURCELL: All right, let's take our  
13 lunch break.

14           THE VIDEOGRAPHER: The time is 12:07 p.m.  
15 We are going off the record. This will be the end  
16 of tape 2 in the deposition of Dr. Iain Cockburn.

17           (Luncheon recess at 12:08 p.m.)

18 -----

19           AFTERNOON SESSION

20                       12:50 p.m.

21 -----

22           THE VIDEOGRAPHER: We are back on the  
23 record. The time is 12:50 p.m. This is tape number  
24 3 in the deposition of Dr. Iain Cockburn.



1 BY MR. PURCELL:

2 Q. Dr. Cockburn, before lunch we were  
3 discussing the studies that you relied on in  
4 assessing the value of the most valuable patents in  
5 the Sun portfolio. Do you recall that?

6 A. Yes.

7 Q. And we discussed the PatVal study.  
8 I would like to move on to the Harhoff study. Do  
9 you know how the sampling of the patents that were  
10 analyzed in that study were selected.

11 A. Well, again I'm a little bit hesitant to  
12 try to recall from memory specific details of these  
13 specific studies. I mean, I can reassure you as I  
14 did before lunch that I have looked carefully at  
15 these studies and satisfied myself that their  
16 methodology was in my view sound and that the  
17 results I could place some reliance upon in  
18 performing my analysis.

19 Q. Do you know if the Harhoff study looked at  
20 patent portfolios and the distribution of value  
21 within portfolios or did it look at individual  
22 patents and their values as the PatVal study had  
23 done?

24 A. I'd prefer if you showed me the document

1 and then I'll refresh my memory.

2 Q. Well, I don't have the document with me.

3 MR. NORTON: If the only obstacle is  
4 having the document, we can get copies of those for  
5 you.

6 BY MR. PURCELL:

7 Q. Do you recall how the Harhoff study went  
8 about selecting the patents that it analyzed?

9 A. Well, I can't -- I reviewed for my own  
10 interest as a referee for peer-reviewed journals  
11 that have published this type of stuff and for other  
12 purposes dozens of these kinds of papers and I'm  
13 afraid that sitting here, I can't recall  
14 specifically the answer to the question you're  
15 asking with sufficient certainty to testify to it  
16 under oath. I don't want to tell you, give you the  
17 wrong answer when I'm referring to a methodology  
18 which was in a similar paper by the same author or  
19 some other such problem.

20 So I'll just reassure you that I have  
21 reviewed the particular studies that I cite quite  
22 carefully and I'm satisfied that they use a reliable  
23 methodology.

24 Q. Do you know whether the Harhoff study

1 focused on any particular technology area?

2 A. As best I recall, it was agnostic with  
3 respect to technologies.

4 Q. So it didn't focus on one specific  
5 technology area, for instance, mobile or Java  
6 technology as the Sun portfolio is concentrated in?

7 A. Well, no, it didn't. And I'll add to that  
8 the observation that this literature, which has used  
9 a variety of methods, a variety of indicia of patent  
10 value, a variety of different samples, some of these  
11 studies have done breakdowns by broad technology  
12 classes such as biopharmaceutical versus electronic,  
13 the finding which emerges with great regularity is  
14 the one with which we began this discussion before  
15 lunch, which is that there is this highly skewed  
16 distribution and typically you would expect the top  
17 1 percent of patents in any set of patents to  
18 account for 50 to 75 percent, in round numbers, of  
19 the economic value of the entire set.

20 Q. Do you know if the Harhoff study --

21 A. And that has held up, as I said, to  
22 different time periods, different methodologies,  
23 different sets of patents in different countries,  
24 slicing and dicing by technology area and so forth.

1 I think it's a very robust and reliable result.

2 Q. Speaking of different countries, do you  
3 know if the Harhoff study was looking at U.S.  
4 patents or patents from some other geographic area?

5 A. The Harhoff study was focused, the  
6 specific one I cite here I believe was focused on  
7 German patents. I know Dr. Harhoff has done similar  
8 research where he's matched the sample of German  
9 patents he's used as best he could to their  
10 equivalent patents in the United States and has  
11 found broadly similar results.

12 Q. And was that done by Dr. Harhoff in the  
13 study that you rely on and cite in this report or  
14 some other study?

15 A. No, I think it was in another study.

16 Q. And, do you know, is that other study  
17 cited anywhere in your report?

18 A. It's not cited in my report. It's almost  
19 certainly cited, as I suggested to you, in the  
20 references, the reference list at the backs of these  
21 papers.

22 Q. And with respect to the Harhoff study, do  
23 you know how the estimates of value of patents in  
24 that study were derived? Was it self-reporting by

1     patentee again?

2           A.     I think it's based essentially on self-  
3     reporting. And I know in his work, you asked the  
4     question before lunch about validation, and I know  
5     Dr. Harhoff has -- whether or not it's in this  
6     particular study, I'd have to look at the document.  
7     But Dr. Harhoff has certainly, to my knowledge, made  
8     efforts to valuate the reported -- to validate the  
9     reported values of patents independently. Now, with  
10    respect to the PatVal study, I think that -- I don't  
11    know whether it's necessarily reported in the  
12    document that I cite here, but I'm pretty sure it's  
13    the case that for some subset of the patents in  
14    their sample, they not only asked the inventors for  
15    their assessment of the value of the patent at the  
16    day it was issued, but they also independently asked  
17    I think it was the inventors' boss or senior manager  
18    or internal counsel or some other independent person  
19    at the same organization to provide an independent  
20    assessment of the value of the same patent roughly  
21    in the same context.

22                So I think it's not the case, as you  
23    appear to show suggesting to me, that these studies  
24    don't attempt to validate the methodology.

1 Generally speaking they do. And whether it will be  
2 reported in that specific paper that I cite or in  
3 another paper which uses the same set of data and  
4 performs a related study I can't pin down for you.

5 Q. Is there any discussion in the literature  
6 of whether the distribution of the value of patents  
7 within a portfolio is any different in the United  
8 States versus other countries?

9 A. What comes to mind, as I think I just  
10 said, the fact which emerges looking at the totality  
11 of these studies is that the degree of skewness  
12 observed is surprisingly similar across different  
13 periods of time, different technologies, different  
14 methodologies, you know, different ways of  
15 approximating or deriving patent value.

16 Q. With respect to the Barney survey, I don't  
17 know if you recall sitting here, but do you remember  
18 how the population of patents analyzed in that  
19 survey was determined?

20 A. Well, as I recall, I think it was about a  
21 sample of 76,000 patents. Again, I think it -- I  
22 think it was based on a particular application  
23 cohort and not restricted to particular  
24 technologies. But, I mean, that's my recollection

1 of it. I would want to confirm that by looking at  
2 the study.

3 Q. And when you say application cohort, you  
4 mean patents that were applied for during a  
5 particular time period?

6 A. Yes.

7 Q. Do you recall the length of that time  
8 period?

9 A. No. I'm thinking -- No, it's relatively  
10 early in time, it might well be, although it was  
11 applied for in a calendar year. Again, you know,  
12 you're asking me to fish in my memory about  
13 something that I can't be certain of.

14 Q. And the Barney study, that looked at U.S.  
15 patents. Correct?

16 A. That looked at U.S. patents.

17 Q. The valuation of the individual patents in  
18 the Barney study, how was that determined?

19 A. Well, the Barney study, I was just  
20 speaking about a variety of methods. So the Barney  
21 study is among those which look at whether or not a  
22 patent is renewed in the sense of the assignee pays  
23 their renewal fee at the Patent Office on the  
24 required date and uses that as an indicator of a

1 lower bound on the value of the patent. If the  
2 owner of the patent decides it's not worth paying  
3 \$500 to renew the patent for the next period of its  
4 term, then you know it's worth less than \$500.  
5 Conversely, if they do decide to pay the annual fee,  
6 it must be worth at least \$500.

7 This is an idea which goes back to some of  
8 the very earliest studies on this topic done in the  
9 early 1980s by Pakes, P-a-k-e-s, and Schankerman,  
10 S-c-h-a-n-k-e-r-m-a-n.

11 Q. With respect to the population of patents  
12 that were renewed and that are worth \$500 or more,  
13 how did the Barney study go about determining more  
14 specific values of those patents?

15 A. Well, you can back out from these data  
16 inferences about the value of patents at different  
17 points based upon these lower-bound numbers where  
18 you know a fraction dropping out are worth less than  
19 some number.

20 Q. Did the Barney study look at anything  
21 other than whether or not patents within the  
22 population were renewed in determining value and  
23 then drawing conclusions from that fact?

24 MR. NORTON: Objection to form.



1           A.     Well, there's two pieces of information,  
2     one of which is: Was the renewal fee paid? And  
3     secondly with respect to how much is the remaining  
4     lifetime of the patent? So the Barney study is  
5     driven off of those two things, which he uses to  
6     infer some value.

7                 None of these -- So looking at renewal  
8     fees is one way people have looked at this. Other  
9     studies have looked at reassignment of patents.  
10    Other studies have looked at what we call  
11    bibliometric indicators, such as citations or the  
12    pattern of citations. There's a lot of correlates  
13    to the economic value of patents which have been  
14    looked at in this sense.

15                What I believe I have been able to show  
16    here is I've looked at a variety of studies which  
17    use a variety of methods and base their conclusions  
18    on a variety of indicators of patent value, to show  
19    that they all come back to the same conclusion.

20            Q.     What if anything did you do to satisfy  
21    yourself that the population of patents that were  
22    examined in these studies are comparable to the Sun  
23    portfolio that is at issue in this case?

24            A.     I think I didn't -- You know, I wasn't

1   able in the time available to conduct my own, if you  
2   like, reference study. I could imagine one might  
3   want to try to replicate the methodology of one of  
4   these studies but to a sample of patents which was  
5   constructed to look like the portfolio in question.  
6   One could imagine there's things one could do. I  
7   don't know that they're feasible to do quickly or  
8   reliably.

9               What I -- My conclusion here is based on  
10   the assumption that this portfolio of patents is  
11   similar in the sense -- Let me try to say this more  
12   coherently.

13              As I've said a few times, it's striking  
14   that these types of studies done for many different  
15   sets of patents and in many different contexts using  
16   many different methodologies all point to a  
17   conclusion which I don't think is controversial,  
18   which is that the value distribution is highly  
19   skewed. So based upon that, it is my opinion that I  
20   have no reason to believe that the 569 patents of  
21   interest here would have a value distribution which  
22   is any less skewed than that which has been found so  
23   many times in so many different circumstances.

24              Q.   Are you aware of any studies that have

1 are the three most valuable patents in the 569  
2 patent portfolio other than Google's revealed  
3 preference through its design of Android?

4 A. Well, of course starting from -- Recognize  
5 that those three patents fall in that very select  
6 group which Dr. Reinhold's analysis points to as  
7 being the most technologically significant and the  
8 most important within that group in terms of  
9 conveying benefits in speed, memory and security to  
10 a smartphone platform. So that points to them being  
11 already amongst the most valuable. And within that,  
12 I think the fact that we know that these patents or  
13 are assuming that these patents are valid and  
14 infringed is going to push them to the very top of  
15 that set of 22.

16 Q. Dr. Reinhold was unable to provide an  
17 opinion that the '104, '205 and '720 patents were  
18 the three most valuable patents in the portfolio.  
19 Correct?

20 A. That's correct. And I understood from my  
21 conversation with him, he did not believe he could  
22 reliably rank those 22 patents in that set in order  
23 of value.

24 Q. But it is your opinion based on Google's

1 characterize the bases of my independent  
2 significance approach using the categories or the  
3 labels that you are using. I base my evaluation of  
4 the significance of these patents relative to other  
5 patents that might be in the portfolio based upon a  
6 variety of evidence.

7 Q. All right. Well, why don't you tell me  
8 what that evidence is.

9 A. Which is discussion in the record as to  
10 the value that Google itself placed upon this type  
11 of functionality; benchmarking studies that I did or  
12 engineers at Oracle did; the work that Dr. Shugan  
13 did using conjoint analysis to evaluate user  
14 preferences or the significance of this  
15 functionality as a basis for demand.

16 My qualitative findings from econometric  
17 work I would not say were a basis for this  
18 determination that I relied upon determinatively but  
19 it's certainly something I considered to the extent  
20 that I believe my econometric work demonstrates  
21 another way of demonstrating the relationship of the  
22 patented functionality to consumer demand. I look  
23 also at Dr. Reinhold's work in grouping and ranking  
24 these patents in terms of their technical merit or

1 significance.

2                   So that's the range of evidence that I  
3 look to and consider in arriving at my determination  
4 as to an apportionment percentage based upon this  
5 independent significance approach.

6 Q. Is there anything else that forms the  
7 basis of your independent significance approach  
8 other than the things you've just listed?

9           A.       Those are the specific criteria, the  
10 specific studies or pieces of evidence or things  
11 I've taken into consideration. I have also relied  
12 upon my general knowledge and experience, my  
13 participation in and knowledge of the academic  
14 researches in this field, the work that I've done  
15 with the Licensing Executives Society on  
16 understanding licensing practices and related issues  
17 which relate to patent valuation; dozens of  
18 conversations over the years with people involved in  
19 licensing or valuing or managing intellectual  
20 property. All of those things put together inform  
21 the basis of my independent significance assessment.

22 MR. NORTON: Mr. Purcell, before you go on  
23 to the next question, do you still need a break?

24 THE WITNESS: I really would like to take

1 a break, if you don't mind.

2 MR. PURCELL: Yes, that's fine.

3 THE VIDEOGRAPHER: The time is 1:57 p.m.

4 We are going off the record.

5 (Short recess taken.)

6 THE VIDEOGRAPHER: We are back on the

7 record. The time is 2:09 p.m.

8 BY MR. PURCELL:

9 Q. Dr. Cockburn, before the break we were  
10 talking about the bases of your independent  
11 significance approach. Correct?

12 A. Correct.

13 Q. You rely on those bases to reach an  
14 apportionment figure of 25 percent for the patents  
15 in suit. Correct?

16 A. Correct.

17 Q. How do you get the 25 percent?

18 A. Well, it's a judgment based on my  
19 expertise and my consideration of the evidence that  
20 we talked about just before the break.

21 Q. Is there any quantification in the  
22 evidence that we talked about before the break that  
23 you can point me to in supporting the 25 percent  
24 conclusion?

1           A.     Are you asking about -- ? I'm sorry. Did  
2     you ask me was there any of the evidence  
3     quantitative?

4           Q.     Correct.

5           A.     Well, certainly. So the results of  
6     benchmarking are quantitative evidence. The factor  
7     by which execution speed is affected by disabling  
8     the patented functionality, I mean, that's a hard  
9     number. That's 80 percent. The conjoint analysis,  
10    the results of the conjoint analysis have a  
11    quantitative expression as to how users' preferences  
12    would drive a counterfactual set of market shares in  
13    the experiment that Dr. Shugan conducted based upon  
14    his conjoint survey. To the degree that I looked to  
15    the dollar implications, these market share impacts,  
16    which as I suggested and told you earlier, I think  
17    are corroborative or supportive but not  
18    determinative of my assessment of 25 percent.

19                I mean, those are numbers, 50 or 75 or 100  
20    million dollars in what I call incremental Android  
21    revenue to Google will be at stake depending on  
22    whether or not you had implemented the patented  
23    functionality or not. So all those are quantitative  
24    facts that go into and form part of my assessment,

1 my evaluation.

2 Q. How do you get from those numbers that you  
3 just cited in the data to the 25 percent conclusion?

4 A. Oh, so you're asking me do I have a  
5 formula into which I could plug those numbers and  
6 that would give an answer which equals 25 percent?

7 Q. Well, that would be one way of doing it.  
8 Have you done it that way?

9 A. No.

10 Q. Without having a hard and fast formula  
11 that would lead to the 25 percent, is there any line  
12 you can draw from any sort of quantitative base  
13 figure to the 25 percent?

14 MR. NORTON: Objection to form.

15 A. No. My conclusion that at least 25  
16 percent is based upon my synthetic assessment of all  
17 of that evidence in light of my knowledge and  
18 experience and expertise.

19 Q. You said in your report at one point, I  
20 know we discussed this earlier, that the conjoint  
21 analysis was not used in the independent  
22 significance approach. If you want to look at the  
23 text, it's in paragraph 423.

24 A. I hope I was clear in my answer to that



1 question, and maybe I wasn't, that perhaps that is  
2 not as well worded as it might be. What I meant by  
3 that sentence was I don't rely upon the application  
4 of conjoint analysis in the way that I did in my  
5 September report to form my independent significance  
6 assessment.

7 Q. And in what way do you rely on it in  
8 forming your independent significance assessment?  
9 Strike that. Let me ask it again.

10 In what way do you rely on Dr. Shugan's  
11 conjoint analysis in forming your independent  
12 significance assessment?

13 A. Didn't I -- ? Didn't you ask me this this  
14 morning?

15 Q. I may have done.

16 MR. NORTON: I'll object on that ground.  
17 But answer the question.

18 A. Well, I rely on it specifically in coming  
19 up with my determination that the patents in suit  
20 constitute at least 25 percent of the value of the  
21 intellectual property component of the 2006 license  
22 bundle. Qualitatively in the sense it's my judgment  
23 looking at the results of Dr. Shugan's analysis that  
24 the functionality enabled by the patents or by the

1 copyrighted APIs has a substantial and significant  
2 impact upon user preferences as translated into the  
3 market share predictions of the conjoint model.

4 Q. Do you rely on the conclusions of the  
5 conjoint model -- Strike that. Do you rely on any  
6 of the quantitative conclusions of the conjoint  
7 model in developing your independent significance  
8 approach?

9 A. Well, yes. I think it's both informative  
10 qualitatively and quantitatively in that the market  
11 share effects are not just statistically  
12 significant; they're also pretty large. The  
13 impacts, if you go to Exhibit 5 in my report --

14 Q. Did you want to point me to something in  
15 Exhibit 5?

16 A. As I was going to go on to say there, I  
17 find Dr. Shugan's work, and maybe I think we need to  
18 go look at Shugan Exhibits 4A and 4B, in and of  
19 themselves looking at those conjoint studies, points  
20 me to a substantial value placed by users.  
21 Substantial also, as I suggested earlier, translates  
22 into significant impacts in terms of dollars or  
23 market share. So I would --

24 Q. When -- Go ahead.

1       A.     That's quantitative information that  
2     I take into account in forming my assessment of at  
3     least 25 percent.

4       Q.     You keep saying at least 25 percent.  
5     What's the upper bound of that range if 25 percent  
6     is the lower bound?

7       A.     Focusing on this synthetic evaluation of  
8     this range of evidence would lead me to think that  
9     these patents are important, they're economically  
10    significant, reflecting on the share of portfolio  
11    value. That they are an important or economically  
12    significant set of patents would constitute, would  
13    suggest to me that something in the range of at  
14    least 25, possibly 50 percent, possibly more, of the  
15    portfolio value could be attributed to those  
16    patents.

17      Q.     Where is the 50 percent or more number  
18    mentioned in your report?

19      A.     It isn't. You just asked me about it. My  
20    opinion is that it's at least 25 percent.

21      Q.     Do you intend to tell the jury that the  
22    independent significance approach could result in an  
23    apportionment of 50 percent or more?

24           MR. NORTON: Objection to form.

1           A.     50 percent or more? Well, if you asked me  
2     on the witness stand could it be 50 percent or more,  
3     then my answer would be yes, it could be.

4           Q.     Based on --

5           A.     I'm comfortable with my opinion as stated,  
6     which is at least 25 percent.

7           Q.     But just to be clear, the 50 percent or  
8     more figure, we're hearing that for the first time  
9     today in this deposition. Correct?

10           MR. NORTON: Objection to form.

11           A.     50 percent is not in my report. I'm just  
12     trying to be responsive to your question.

13           Q.     So whether the number is 25 percent or  
14     50 percent or more under the independent  
15     significance approach, is there any more specific  
16     way you can describe how you get to that result  
17     other than saying you synthesized all of the various  
18     inputs we've discussed and come out with that  
19     number?

20           A.     So I have synthesized those inputs and I  
21     have put them in the context of my general knowledge  
22     and experience and my consideration of the  
23     fundamental economics that are at work here, the  
24     broader context in which we are considering this

1 dispute or a moot question in my mind because I  
2 think that -- I don't think there's any economic  
3 basis to believe that the value of a copyright to a  
4 larger number of APIs will be any different from the  
5 value of a copyright to 37 APIs specifically.

6 Q. What about copyrighted works other than  
7 APIs and code libraries? Did you take those into  
8 account?

9 MR. NORTON: Objection to form.

10 A. I'm not aware that there's any other  
11 copyrights at stake.

12 Q. What is your basis for your understanding  
13 of which copyrights are at stake?

14 A. Well, I haven't seen any other specific  
15 copyrights identified. If you can suggest something  
16 to me that --

17 Q. Do you know how many copyrighted works  
18 related to Java Sun owned as of mid 2006?

19 MR. NORTON: Objection to form.

20 A. Are you asking me about the totality of  
21 copyrighted material which has any relation to Java  
22 owned by Sun?

23 Q. Let's start there, sure.

24 A. Well, I don't know. If you counted them

1 up individually, assuming there's one copyright to  
2 one small document, it could run into quite large  
3 numbers of specific copyrights.

4 I think what's important here is to focus  
5 on what's understood to be licensed within the terms  
6 of the agreement --

7 Q. Which is --

8 MR. NORTON: I'm sorry. You're  
9 interrupting the witness's answer.

10 MR. PURCELL: I think he's done.

11 THE WITNESS: No, I'm not done.

12 A. Within the terms of the agreements or the  
13 draft agreements, which as I recall have clauses  
14 which quite specifically limit the intellectual  
15 property to be conveyed by Sun to Google. I can't  
16 recall the precise language sitting here, but if you  
17 show me the agreement, I'll point you to it.

18 Q. So it is your understanding that the  
19 copyright component of the 2006 bundle in the draft  
20 agreements was limited to just API specifications  
21 and code libraries?

22 A. It is limited in the first place to  
23 copyright which would meet the limitations of  
24 copyrighted material, which would be used to be

1 anything specific other than APIs and associated  
2 underlying code libraries.

3 Q. Sun also wrote the source code underlying  
4 its implementation of the Java virtual machine.  
5 Correct?

6 A. Correct.

7 Q. And that source code is copyrighted.  
8 Correct?

9 A. Correct.

10 Q. What is your basis for thinking that the  
11 2006 bundle would have excluded that copyrighted  
12 source code?

13 MR. NORTON: Objection to form.

14 A. I'm sorry. Can you repeat the previous  
15 question before you asked me what my basis was? Or  
16 just --

17 Q. The source code underlying Sun's  
18 implementation of the Java virtual machine is  
19 copyrighted. Correct?

20 MR. NORTON: Objection to form.

21 A. Correct.

22 Q. So what is your basis for your opinion  
23 that the copyright aspect of the 2006 bundle would  
24 exclude that copyrighted source code?

1           MR. NORTON: Objection to form.

2           A.     It's not necessarily clear whether that  
3     particular copyright in that particular source code  
4     is being conveyed. Again, we can go back and look  
5     at the agreement. As I understand it, Google and  
6     Sun proposed to jointly develop a Linux Java mobile  
7     stack which will be released under certain, under  
8     some to be agreed open-source licensing framework.

9           Now, some of the copyrights, some of the  
10    code that constitutes Sun's virtual machine may go  
11    in there line for line; some of it may not. There  
12    may be fresh copyrights created by new and modified  
13    code. It's not clear who owns those.

14           To the extent that such copyrights are  
15    being -- Just give me a moment. (Pause)

16           There are some specific copyrighted  
17    materials which can be identified here which are the  
18    APIs which in my view are clearly distinguished and  
19    have a clearly identified need for Google to license  
20    those APIs in order to be able to do a Java  
21    implementation which offers these core APIs to the  
22    community of developers who expect them to be there.  
23    I believe it is reason to believe that they could be  
24    an identifiable contribution of their value to the



1   entire value and spot entire amount conveyed to Sun  
2   under this 2006 agreement.

3           To the extent that there are other  
4   copyrights created or conveyed or incorporated in  
5   that agreement, I think that their value is both  
6   probably more difficult to distinguish but is going  
7   to be picked up in the revenues which Sun would  
8   anticipate to realize from its part of the revenue  
9   from monetizing this open-source release through its  
10   business model.

11       Q.   The value to Google of the additional  
12   copyrights would be accounted for in Sun's  
13   monetization?

14       A.   No, we're not talking about the value to  
15   Google. We're talking about the value to Sun.

16       Q.   We're talking about the extent to which  
17   the 2006 bundle amount includes copyrights that your  
18   analysis hasn't accounted for. Your analysis -- Let  
19   me ask a question. Your analysis doesn't account  
20   for the value of any copyrights other than the API  
21   specifications and associated code libraries.  
22   Correct?

23           MR. NORTON: Objection to form.

24       A.   I would say my analysis doesn't isolate

[illegible]

[illegible]

1           A.     Well, if the ability to develop a vibrant  
2     application developer community is make or break for  
3     this platform, as it appears to have been for other  
4     attempts to create such ecosystems such as, if you  
5     like, the last gasp of Palm as an independent  
6     platform, trying to sell a Palm OS or recent efforts  
7     to reincarnate WebOS, many of these things seem to  
8     be perfectly good technologies in terms of their  
9     technical merit. It is just that they fail in the  
10    marketplace because they cannot attract the supply  
11    of complementary applications.

12                So if it was indeed the case that not  
13    having access to the core Java APIs was going to  
14    throw sufficient sand into the gears of the virtuous  
15    circle or the positive feedback loop which drives  
16    these dynamics, then it might well be the case that  
17    Android would have been a complete flop purely on  
18    those grounds, in which case you might argue that  
19    100 percent of the value of the agreement could be  
20    attributed just to the copyrights.

21           Q.     And is that in addition to the 50 percent  
22    or more that could be attributed to the patents?

23           A.     That would trump the patents. That's not  
24    going to be additive. It can't be more than a